RETROSPECTIVE ARCHITECTURAL LITERATURE.

THE ELEMENTS OF ARCHITECTURE.

COLLECTED BY SIR HENRY WOTTON, KNIGHT, *From the best Authors and Examples.*

(*Continued from p. 407.*)

THE *Dorick* Order is the gravest that hath been received into civil use, preserving, in comparison of those that follow, a more masculine Aspect, and little trimmer than the *Tuscan* that went before, save a sober Garnishment now and then of Lions Heads in the Cornice, and of Triglyphs and Metopes always in the Frize: Sometimes likewise, but rarely, channelled, and a little slight Sculpture about the Hypotrachelion, or Neck, under the Capital. The Length seven Diameters. His Rank or Decree is the lowest by all Congruity, as being more massy than the other three, and consequently abler to support. The Intercolumniation thrice as much as his Thickness below. The Contraction aloft, one fifth of the same measure. To discern him, will be a piece rather of good *Heraldry* than of *Architecture*; for he is best known by his Place, when he is in Company, and by the peculiar Ornament of his Frize, before-mentioned, when he is alone.

The *Ionic* Order doth represent a kind of feminine Slenderness, yet, saith Vitruvius, not like a light Housewife, but in a decent Dressing hath much of the Matron. The Length eight Diameters. In Degree, as in Substantialness, next above the *Dorick*, sustaining the third, and adorning the second Story. The Intercolumniation, two of his own Diameters. The Contraction, one sixth part, best known by his Trimmings; for the Body of this Column is perpetually channelled, like a thick plaited Gown. The Capital dressed on each side, not much unlike Womens Wires, in a spiral Wreathing, which they call the *Ionian Voluta*. The Cornice indented. The Frize swelling like a Pillow, and therefore by Vitruvius not unelegantly term'd *Pulvinata*. These are his best Characters.

The *Corinthian* is a Column laciviously deck'd like a Courtezan, and therein much participating (as all inventions do) of the Place where they were first born, Corinth having been, without controversy, one of the wantonest Towns in the World. This Order is of nine Diameters. His Degree one Stage above the *Ionic*, and always the highest of the simple Orders. The Intercolumniation, two of his Diameters, and a fourth part more, which is of all other the comliest Distance. The Contraction one seventh Part. In the Cornice, both Dentelli and Modiglioni.* The Frize adorned with all kinds of Figures and various Compartments at Pleasure. The Capital cut into the beautifullest Leaf that Nature doth yield, which surely next *Aconitum Pardalianches* (rejected perchance as an ominous Plant) is the *Acanthus* or *Branca Ursini*, though Vitruvius do impute the Choice thereof unto Chance, and we must be contented to believe him: In short, as Plainness did characterize the *Tuscan*, so must Delicacy and Variety the *Corinthian* Pillar, besides the Height of his Rank.

The last is the Compounded Order; his Name being a Brief of his Nature: For this Pillar is nothing in effect but a Medley, or an Amass of all the precedent Ornaments, making a new Kind by stealth; and though the most richly tricked, yet the poorest in this, that he is a Borrower of all his Beauty. His Length (that he may have somewhat of his own) shall be of ten Diameters. His Degree should, no doubt, be the highest, by Reasons before yielded: But few Palaces, ancient or modern, exceed the third of the Civil Orders. The Intercolumniation but a Diameter and an half, or always somewhat less than two. The Contraction of this Pillar must be one eight Part less above than below. To know him, will be easy by the very mixture of his Ornaments and Cloathing.

And so much touching the five Orders of Columns, which I will conclude with two or three not impertinent Cautions.

First, That where more of these Orders than one shall be set in several Stories or Contignations, there must be an exquisite care to place the Columns precisely one over another, that so the Solid may answer to the Solid, and the Vacuities to the Vacuities, as well for beauty as Strength of the Fabrick; and by this Caution the Consequence is plain, that when we speak of the Intercolumniation or Distance which is due to each Order, we mean in a *Dorick*, *Ionical*, *Corinthian* Porch or Cloyster, or the like of one Contignation, and not in Storied Buildings.

Secondly, Let the columns above be a fourth Part less than those below, saith Vitruvius, Lib. 5, Cap. 15. A strange Precept, in my Opinion, and so strange, that perpadventure it were more suitable even to his own Principles, to make them rather a fourth Part greater; for Lib. 3, Cap. 2, where our Master handleth the Contraction of Pillars, we have an Optick Rule, that the higher they are, the less should be always their Diminution aloft, because the Eye itself does naturally contract all Objects, more or less, according to the Distance; which Consideration may, at first Sight, seem to have been forgotten in the Caution we have now given; but Vitruvius (the best Interpreter of himself) hath in the same Place of his fifth Book, well acquitted his Memory by these Words; *Columnæ superiores quarta parte minores, quam inferiores, sunt constituendæ propterea quòd, operi, ferendo quæ sunt inferiora, firmiora esse debent*; preferring, like a wise Mechanick, the natural Reason before the Mathematical, and sensible Conceits before abstracted: And yet, Lib. 4, Cap. 4, he seemeth again to affect Subtilty, allowing Pillars the more they are channelled to be the more slender, because while our Eye (saith he) does as it were distinctly measure the eminent and the hollowed Parts, the total Object appeareth the bigger, and so as much as those Excavations do substract, is supplied by a Fallacy of the Sight: But here, methinks, our Master should likewise have rather consider'd the natural Inconvenience; for though Pillars by channelling be seemingly ingrossed to our Sight, yet they are truly weakened in themselves, and therefore ought perchance in sound Reason not to be more slender, but the more corpulent, unless Appearances preponder Truths; but *Contra Magistrum, non est Disputandum*.

A Third Caution shall be, that all the projecting or jutting Parts (as they are termed) be very moderate, especially the Cornices of the lower Orders; for whilst some think to give them a beautiful and royal Aspect, by their Largeness, they sometimes hinder both the Light within (whereof I shall speak more in due Place) and likewise detract much from the View of the Front without, as well appeareth in one of the principal Fabricks at Venice, namely the palace of Duke Grimani on the Canal Grande, which by this magnificent Error is somewhat disgraced. I need now say no more concerning Columns and their Adjuncts, about which Architects make such a Noise in their Books, as if the very Terms of Architraves, and Frizes, and Cornices, and the like were enough to graduate a Master of this Art; yet let me, before I pass to other Matter, prevent a familiar Objection. It will perchance be said, that all this Doctrine touching the five Orders were fitter for the Quarries of Asia, which yielded One hundred and twenty-seven Columns of sixty Foot high, to the Ephesian Temple; or for Numidia, where Marbles abound, than for the Spirits of England, who must be contented with more ignoble Materials. To which I answer, That this need not discourage us; for I have often at Venice viewed with much Pleasure, an *Atrium Græcum* (we may translate it an Anti-Porch, after the Greek manner) raised by Andrea Palladio, upon eight Columns of the Compounded Order; the Bases of Stone, without Pedestals; the Shafts or Bodies of mere Brick, three Foot and an half thick in the Diameter below, and consequently thirty-five Foot high, as himself hath described them in his Second Book, than which mine Eye hath never yet beheld any Columns more stately of Stone or Marble; for the Bricks having first been formed in a circular Mould, and then cut before their burning into four Quarters or more, the Sides afterwards join so closely, and the Points concenter so exactly, that the Pillars appear one entire Piece; which short Description I could not omit, that thereby may appear how in truth we want rather Art than stuff to satisfy our greatest Fancies.

After Pillars, the next in my Distribution are Pilasters, mentioned by Vitruvius, Lib. 8, Cap. 1, and scant any where else, under the Name of Parastates, as Philander conceiveth; which Grammatical Point (though perchance not very clear) I am contented to examine no farther. Always, what we mean by the thing it self, is plain enough in our own Vulgar, touching which, I will briefly collect the most considerable Notes.

Pilasters must not be too tall and slender, least they resemble Pillars; nor too dwarfish of gross, least they imitate Piles or Piers of Bridges: Smoothness doth not so naturally become them, as a rustick Superficies, for they aim more at State and Strength than Elegancy. In private Buildings they ought not to be narrower than one Third, nor broader than two Parts of the whole Vacuity between Pilaster and Pilaster; but to those that stand at the Corners, may be allowed a little more Latitude by Discretion, for Strength of the Angles. In Theatres and Amphi-Theatres, and such weighty Works, Palladio observeth them to have been as broad as the Half, and now and then as the whole Vacuity. He noteth likewise (and others consent with him) that their true Proportion should be an exact Square; but for lessening of Expense, and inlarging of Room, they are commonly narrower in Flank than in Front: Their principal Grace doth consist in half or whole Pillars applied unto them; in which case it is well noted by Authors, that the Columns may be allowed somewhat above their ordinary Length, because they lean unto so good Supporters. And thus much shall suffice touching Pilasters, which is a cheap and strong, and a noble Kind of Structure.

Now, because they are oftner, both for Beauty and Majesty, found arched than otherwise, I am here orderly led to speak of Arches, and under the same Head of Vaults, for an Arch is nothing indeed but a contracted Vault, and a Vault is but a dilated Arch; therefore to handle this Piece both compendiously and fundamentally, I will resolve the whole business into a few *Theorems*.

THEOREM I.

All solid Materials free from Impediment, do descend perpendicularly downwards, because Ponderosity is a natural Inclination to the Centre of the World, and Nature performeth her Motions by the shortest Lines.

THEOREM II.

Bricks moulded in the ordinary Rectangular Form, if they shall be laid one by another in a level Row, between any Supporters sustaining the two Ends, then all the Pieces between, will necessarily sink, even by their own natural Gravity, and much more if they suffer any depression by other Weight above them, because their Sides being parallel, they have room to descend perpendicularly, without impeachment, according to the former Theorem; therefore to make them stand, we must either change their posture or their figure, or both.

THEOREM III.

If Bricks moulded, or Stones squared *Cuneatim* (that is, Wedge-wise, broader above than below) shall be laid in a Row level, with their Ends supported as in the precedent Theorem, pointing all to one Center; then none of the Pieces between can sink till the Supporters give way, because they want room in that Figuration to descend perpendicularly. But this is yet a weak Piece of Structure, because the Supporters are subject to much Impulsion, especially if the Line be long; for which Reason this Form is seldom used, but over Windows or narrow Doors. Therefore to fortify the Work, as in this Third Theorem, we have supposed the Figure of all the Materials different from those in the Second: So likewise we must now change the Posture, as will appear in the Theorem following.

THEOREM IV.

If the Materials figured as before Wedge-wise, shall not be disposed levelly, but in form of some Arch or Proportion of a Circle, pointing all to the same Center: In this Case, neither the Pieces of the said Arch can sink downwards, through want of room to descend perpendicularly; nor the Supporters or Butments (as they are termed) of the said Arch can suffer so much Violence, as in the precedent flat Posture, for the Roundness will always make the incumbent Weight rather to rest upon the Supporters than to shove them.

* Our Artizans call them Teeth and Cartooses.

† By the First Theorem.

To learn about PDF Compression and OCR go to our website